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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,713	01/26/2001	Ryusuke Sasaki	SIP1P041	8884

22434 7590 11/29/2002

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EXAMINER

NGUYEN, KIMBINH T

ART UNIT	PAPER NUMBER
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2671

DATE MAILED: 11/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/042,713

Applicant(s)

SASAKI, RYUSUKE

Examiner

Kimbinh T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-10 are pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (6,320,988).

Claim 1, Yamaguchi et al. discloses computer-readable recording medium for transforming a 3D object (virtual skeleton model) having parts which is determined by vertexes associated with a cluster (a group of data points (nodes) on a graph) (col. 2, lines 28-36; figs. 8, 10, 11; col. 30, lines 13-14); in each frame display period, an amount of parallel movement of the cluster according to animation data defining a movement of 3D object (col. 16, lines 28-35); calculate parallel movement of the cluster and a weight predefined for vertex corresponding to the cluster, the vertexes parallel to each other (col. 29, lines 1-55; col. 30, lines 42-45). Yamaguchi provides a method transforming a skeleton model of a multiple-branching structure (a set of nodes) which correspond to the coordinates of vertexes or clusters, the skeleton model ought to restricted to a boundary moves and an amount of parallel movement is calculated to

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reduce errors. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the Yamaguchi's teaching for producing the claimed invention, because it is possible to improve the shape transformation method, game machine and allow a user to specify the transformation of the skeleton model.

Claim 2, Yamaguchi et al. discloses a movement of joint in a virtual skeleton (fig. 4) defining a framework of 3D object and including joints, vertexes (nodes) being associated with joints, the vertex ~~of~~ (col. 30, lines 3-4) corresponding thereto after the parallel movement of the vertexes (col. 31, lines 13-20; col. 35, lines 13-15). Claim 2 depends upon claim 1 and is rejected on the same basis set forth in claim 1.

Claim 3, Yamaguchi et al. discloses determining whether an amount of parallel movement of the cluster being processed is not defined (equation is indefinite or an unknown is degenerate or in state approximating) (col. 7, lines 50-52); calculating, if it is determined that the amount of parallel movement of the cluster is not defined, the amount of parallel movement of cluster having already processed and an amount of parallel movement of the cluster to be processed later (col. 28, lines 61-67); if it is determined that the amount of parallel movement of the cluster is defined, the defined amount of parallel movement of the cluster being processed (col. 31, lines 17-19; col. 35, lines 13-15). Claim 3 depends upon claim 1 and is rejected on the same basis set forth in claim 1.

Claims 4-6 are method claims which correspond to the claimed elements of claims 1-3 and are rejected on the same basis and by the rationale provided in the rejection of claims 1-3.

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Claim 7 is the device claim which corresponds to the claimed elements of claims 1 and are rejected on the same basis and by the rationale provided in the rejection of claim 1.

Claims 8-10 disclose a video game apparatus, a video program and a computer program which correspond to the claimed elements of claim 1 and are rejected on the same basis set forth and by the rationale provide in the rejection of claim 1.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Poppen et al. U.S. (5,706,503) discloses method for clustering multi-dimensional related data in a computer database by combining the two vertices of a graph connected by an edge having the highest score.
- Taubin et al. U.S. (6,009,435) discloses progressive compression of clustered multi-resolution polygonal models.
- Battle U.S. (6,417,848) discloses pixel clustering for improved graphics throughput.
- Watanabe et al. U.S. (5,819,016) discloses apparatus for modeling 3D information.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kimbinh Nguyen** whose telephone number is **(703)**

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305-9683. The examiner can normally be reached **(Monday- Thursday from 7:00 AM to 4:30 PM and alternate Fridays from 7:00 AM to 3:30 PM).**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman, can be reached at (703) 305-9798.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

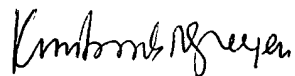
Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Part II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

November 21, 2002



Kimbinh Nguyen

Patent Examiner AU 2671